

## Florida Department of Transportation Practice

The Florida Department of Transportation (FDOT) has developed an up-to-date handbook and accompanying software for the analysis of the quality and level of service for any roadway under its jurisdiction. Quality of Service (QOS) is “a traveler-based perception of how well a transportation service or facility operates”, where level of service (LOS) is simply “a quantitative stratification of quality of service into six letter grades” (A through F with F being the worst). The handbook and software that FDOT has developed are the first successful, comprehensive, multimodal analysis tools of their kind. However, it is important to note that the FDOT LOS Handbook and Software are intended for use only in planning and preliminary design because they do not contain the tools necessary for operational analysis or final design. Many other documents and methods exist which are more appropriate for such analysis.

The FDOT describes two different levels of roadway analysis: generalized planning and conceptual planning. Generalized planning should be utilized when a quick, rough estimate of the LOS of a roadway is desired because this is a tool based upon broad, statewide research and statewide default values. On the other hand, conceptual planning should be used when it is necessary to determine a more exact, detailed measurement of the LOS of a roadway based upon specific observed or expected roadway variables (rather than statewide default values). Of course, even conceptual planning is much less precise than that found in general operational analysis and design.

FDOT developed a series of Generalized Tables to aid users interested in the general planning stage. These tables are included in their handbook and contain default values that are generally applicable throughout the state of Florida. For more detailed, area-specific planning processes, FDOT developed a conceptual planning software program known as LOSPLAN, which is intended for use in applications like deciding on a design concept or scope of a facility. The program is actually separated into three completely separate programs: ARTPLAN for arterials and other signalized roadways, FREEPLAN for freeways, and HIGHPLAN for uninterrupted-flow highways. Also, while the Generalized Tables and LOSPLAN are capable of producing multimodal LOS values (pedestrians, bicycles, buses, and automobiles), they do not produce an overall intermodal LOS that includes all modes. The LOS for each user type is always determined and stated separately from the LOS for the other three modes. For instance, along a given arterial, the automobile LOS may be at level D, but the arterial may possess adequate sidewalk coverage, sidewalk separation from vehicular traffic, and pedestrian crossing times at signalized intersections to provide for a pedestrian LOS of level B.

The FDOT handbook also notes that the term LOS does not directly refer to overall “quality” of trip experience. LOS is a mathematical measurement calculated by engineers and transportation planners that does not deal with other non-numerical factors such as neighborhood safety or appearance. *LOS is intended to be a measure of the level of effectiveness with which a roadway is serving its users, not necessarily a measurement of the “desirability” of a roadway.*